DOCUMENT RESUME

ED 383 323 IR 017 178

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TITLE The Impact of Situational Factors on the Corporate Instructional Development Practitioner's Decision Making.
PUB DATE 95
NOTE 20p.; In: Proceedings of the 1995 Annual National Convention of the Association for Educational Communications and Technology (AECT), (17th, Anaheim, CA, 1995); see IR 017 139.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Context Effect; Corporations; *Decision Making; Environment; Foreign Countries; *Influences; *Instructional Development; Planning; Theory Practice Relationship
IDENTIFIERS Practitioners; Taiwan

ABSTRACT

A conceptual framework is proposed which will advance instructional development (ID) theory, especially at the macro level which encompasses planning, development, and implementation. The influence of critical and situational factors and the interaction between the practitioner and the surrounding context is explored and illuminated. Situational factors are defined as "a variety of environmental forces which influence the practitioner's decision making in a specific situation." These are: individual characteristics, resource availability, client needs, organizational influences, and market competition. Three additional factors emerged during the course of inquiry: cultural context, nature of the task, and stakeholders. Data collection involved four expert ID practitioners from the China Productivity Center (CPC) (Taiwan), and used: (1) spontaneous conversation; (2) interview and discussion; (3) participant observation; (4) field notes and a reflexive journal; and (5) document and record reviews. A summary is presented of the five cases of four ID practitioners. The client's needs were found to be the most critical of the situational factors in the practitioners' decision making. The factors of cultural context, organizational influences, individual characteristics, and resource availability were critical in all five cases. The nature of the project and stakeholders were less critical, but still significant. Findings are discussed under four themes: (1) situational factors; (2) interlacing network; (3) decision making process; and (4) corporate ID practices. Three figures illustrate concepts, and two tables summarize data. (Contains 22 references.) (Author/MAS)

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Title:

The Impact of Situational Factors on the Corporate Instructional Development Practitioner's Decision Making

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Background

Widespread change is dramatically altering the traditional face of the workplace. This is creating new problems and conflicts which call for new interventions and strategies. One of the emerging problems in the field of Instructional Development (ID) is the widening gap between theory and practice.

Over the years, the majority of ID studies at the macro level have focused on model building (Andrews & Goodson, 1980; Taylor & Doughty, 1988). In the past, theoreticians identified the critical ID component tasks, organized them in a logical, linear sequence and suggested that practitioners follow them systematically and thoroughly (Gustafson & Tillman, 1991). But, this strictly step-by-step procedure does not reflect the ID process as practiced in the field, since it is what works that counts in the product-oriented corporate world.

Until recently, little research had addressed the critical issue of "what works," let alone the crucial decision-making process involved in corporate ID practice or the quality of the decisions made. ID professionals may have to explore diverse human and situational factors in pursuing this line of research.

In examining the recent developments and future directions of ID, the literature revealed that special attention is now being given to social, political, and cultural influences. This, in turn, is leading to a shift from the early classical, mechanistic mode to a more flexible, situational and social approach to ID (McAlpine, 1992; Schwen, 1988; Stolovitch & Keeps, 1992; Tessmer and Wedman, 1990 through 1993; Tripp, et al., 1990).

In addition, a review of the literature on successful corporate ID practice provides insightful evidence that the ID practitioner's decision-making process is profoundly influenced by diverse situational factors (Gordon, 1986; Greer, 1992; Kaczmarek, 1992; Rowland, 1992; Steinburg, 1991; Wedman and Tessmer, 1993). But to date, the process of identifying, organizing, weighing, and prioritizing these factors, as well as the process of making decisions and visualizing the consequences have not been clarified by research.

Research into those ID processes which modify theory must be the engine which drives professional practice. Exploring both the ID context and the expert practitioner's decision-making process in the corporate setting could provide insights which advance ID theory and give practitioners a more realistic set of options. This article describes the two-year naturalistic inquiry which was committed to this goal.

From the researcher's point of view, this study proposes a conceptual framework which will advance ID theory, especially at the macro level which encompasses planning, development and implementation. From the ID practitioner's perspective, it explores and illuminates the influences of critical situational factors and the interaction between the practitioner and the surrounding context. This was accomplished by asking the following research questions:

- What are the critical situational factors which influence the corporate ID practitioner's decision-making process?
- How do the critical situational factors influence the corporate ID practitioner's decision-making process?
- What patterns exist in the dynamic interplay among the critical situational factors which can elicit a descriptive framework for what may be done, rather than a prescription for what must be done?

Situational factors in this study are defined as "a variety of environmental forces which influence the ID practitioner's decision making in a specific situation." These forces may act either as restraints or advantages for the practitioner. Five situational factors were identified from the literature: (1) individual characteristics, (2) resource availability, (3) client needs, (4) organizational influences, and (5) market competition. Market competition was excluded because it was beyond the scope of this study. Three new situational factors emerged during the course of the inquiry: (a) cultural context, (b) nature of the task, and (c) stakeholders. Together, these seven situational factors formed the core of this study.

The China Productivity Center (CPC), Taiwan, was chosen as the setting for this inquiry for several reasons. First, it provides a concentrated source of high quality corporate consulting and training services which could be observed in situ. Second, CPC carries out the government's policies for economic development by serving the nation's small- to medium-sized enterprises. Third, while many success stories exist in Asia's Pacific Rim countries, Taiwan's "economic miracle" is one of the very best examples. Finally, for corporations seeking to internationalize, Taiwan, with its unique location, history and economic achievements, serves as a gateway to Asia; and for Taiwan's business community, CPC serves as a gateway to the world.

In this article, I first describe the research method, then provide a summary of the context of the study. Next, the five cases of the four ID practitioners are presented in a condensed form. This is followed by a discussion of research findings. Finally, some promising areas for further research in corporate instructional development are identified.

Methodology

Heinich (1984) asserts that ID research efforts should focus less on telling practitioners what they should do, and concentrate instead on finding out what the conditions are that shape their decisions. By criticizing the laboratory approach as not compatible with instructional management realities, Heinich goes on to encourage ID researchers to engage in more naturalistic inquiry (the research paradigm as described by Lincoln & Guba, 1985). The present study followed this direction.

Winn (1986) also argues that it is imperative that the case study method be considered as a serious research tool for ID inquiry. In recommending this approach, Winn contends that, because there are certain common elements in every ID project, "how each of these (elements) is handled under different circumstances is very instructive, and usually adaptable to other projects" (p. 350). Therefore, in this inquiry, the qualitative case study, with its emphasis on *description* rather than *prescription*, is the method chosen to cast light on the dynamic interplay of critical situational factors on the ID practitioner's decision-making process.

Subjects

Four expert ID practitioners were selected as a purposive sample of subjects for this study. Edward, Mary and Emilie are Group Managers at CPC. Tony, a former Group Manager, is currently a Senior Manager at a major international insurance corporation. Their average age is 35 years; their average length of service at CPC is 6.5 years.

All hold bachelor's degrees, Edward in Mechanical Engineering, Mary in Law, Tony in Psychology, and Emilie in Graphic Design. Only Emilie has a formal ID education background (Master's in Instructional Technology). Edward, Tony and Emilie hold Human Resources Management (HRM) Consultant Certificates issued by CPC, while Mary has had extensive work experience in the non-profit sector. These four practitioners started their professional careers either as trainers or training coordinators. They have grown professionally and are well on their way to completing the transition from ID practitioners to holistic organizational consultants.

Data Collection

The duration of this study was January 1992 through July 1994. Preliminary inquiries were undertaken both in the United States and at the China Productivity Center (CPC) in Taiwan between July 1992 and December 1993. Historical and observational data were collected during this period. The focus period (January 1994 through April 1994) consisted of an in-depth study of the four key participants involved in the ID process at CPC. Post data analysis and report writing was carried out between May 1994 and July 1994.

The data collection techniques used were: (1) spontaneous conversation, (2) interview and discussion, (3) participant observation, (4) field notes and a reflexive journal, and (5) document and record reviews. The interview, discussion and participant observation proved to be the most powerful means for revealing the way the practitioners perceived and responded to reality.

Informal discussions (e.g., those held during the process of developing or managing the ID projects) often provided the most insightful discoveries of the "true" socio-political perspectives of the participants. This kind of discussion together with semi-structured interviews served as the primary tools of the inquiry. The interviews and discussions were conducted in a conversational tone to preserve the naturalness of the interaction.

Intensive participant observation was another powerful tool. I had been engaged in a dialog with these subjects and with CPC as an organizational entity since July 1992. I worked side-by-side with the practitioners, shared their frustrations and happiness, their struggles and celebrations on a daily basis. Participant observation thus provided me with an in-depth, here-and-now experience. It allowed me to live in the participants' time frame, to perceive the world as they saw it, to capture their emotional reactions, and to confirm what was being discussed.

Data Analysis

In a naturalistic inquiry, data collection is carried out simultaneously with data analysis. This enables the inquirer to focus and to shape his or her study as it proceeds. But in this article, these two processes are presented separately for the convenience of the discussion. A combination of different methods of data analysis was used. These included: (a) the constant comparative approach (Glaser & Strauss, 1967), (b) the modified constant comparative approach (Lincoln & Guba, 1985), and (c) data analysis strategies recommended by Merriam (1988).

My reflexive journal was used as the principal tool for the ongoing data analysis. The journal focused on (a) those issues and concerns which the interviewees addressed most centrally, (b) the main themes emerging from the interviews, discussions and observations, and (c) any speculations or guesses suggested during the interviews, discussions and observations.

Post data analysis activities included preparing data for analysis and analyzing for category and pattern. In preparing data for analysis, all of the information collected was first organized into a comprehensive resource package. The summaries were then transferred (together with any pertinent quotations) to 3X5 index cards. Each card carried a unit of information; that is, any relevant statement that stood alone without further emendation. Each card was then assigned three codes that corresponded to the respondent's first initial, the date of the interaction, the page number and sequence on the summary page (example: T/2-8-94/3.2). This code provided a means by which all data used could be located within the raw data sources.

In analyzing for categories and emerging pattern, I began by sorting the cards into categories which shared common properties, and then gave each category a tentative name. I cross-coded and duplicated those cards which fitted into two or more categories. The grouped cards were re-sorted and assigned a formal category name. I then wrote a thematic memo about each group of cards. These thematic memos were compared, analyzed and grouped again into larger patterns. Finally, I established theoretical constructs from the distillation of the patterns which emerged.

Context

In the past, Instructional Development has been more closely aligned with education than with business. The ID profession is growing rapidly and the market in public and higher education has become more crowded. An increasing number of practitioners are now entering the corporate world as trainers and consultants. The majority of corporate ID practitioners are either employed by private companies, serve in government agencies, or work for business consulting firms. The scenario of this case study represents a fourth option. The China Productivity Center in Taiwan is a government-business partnership for workforce development.

Taiwan

Taiwan's rapid economic development has brought it in three decades from an agriculture backwater to the 13th largest trader in the world. More recently, it has drawn international attention and acclaim for its political reforms. Taiwan's economic and political liberalization fostered the growth of pluralism, which

in turn changed social structure and relationships. High rates of educational attainment, the emergence of a vigorous middle class, and expanded international trading networks are accelerating Taiwan's rate of social development.

Under great pressure to keep up with the rapid pace of change, corporate education has become a business strategy to stay profitable and to gain a competitive advantage. Many corporations in Taiwan send their employees to an outside vendor. While numerous private consulting firms provide training services, some government-business partnership are also heavily involved in workforce development. The China Productivity Center (CPC) is one of the best-known and most successful examples.

China Productivity Center

CPC was established by the government in 1955 to assist Taiwan's small- and medium-sized enterprises in improving their productivity and the quality of their services. Run as a non-profit government-private parternship, it has played a key role in facilitating Taiwan's economic growth.

Since 1955, CPC has carried out a range of activities which fall into three broad categories: (a) those directly connected to government, such as implementing productivity-related policies; (b) those in direct response to client needs, such as providing business and training services; and (c) support services for business in general, such as forming professional associations, producing trade and professional publications, establishing productivity-related university programs, participating in international organization, and facilitating social well-being.

Under the leadership of Dr. Casper Y. Shih, CPC has undergone three critical organizational changes since 1984. The newly decentralized organizational structure has created a climate of vitality and autonomy. Only a few technical professionals at CPC have ID backgrounds--most learn by self-study and on-the-job experience. ID practitioners at CPC often combine roles: organizational consultant, project manager, activity expert, instructional designer, technical expert, and administrative support.

Cases

Following is a summary of the five cases of the four experienced ID practitioners studied at CPC in Taiwan. The full text of the cases can be found in the original research manuscript (Liang, 1994). Some of the richness of the interactions which took place during the inquiry may be lost in this present form.

The first case describes how Edward carried out a government-sponsored project in the agricultural community. Case two tells the story of Mary's struggle with her team's transition from government-supported to profit-making status. The third introduces Tony's DWACT corporate ID model. Case four, Tony's second case, discusses typical problems which the practitioner might encounter in corporate ID work. The last case, Emilie's, is a synthesis of many of the features from the previous four cases.

Case One (Edward)

Since 1971, when Taiwan was expelled from the United Nations, the dream of Taiwan's government has been to reenter the international community. To this end, one of its strategies has been to participate in a variety of international organizations. Becoming a member of GATT (General Agreement of Tariffs and Trade) is just one of many examples. But, the most serious internal impact of participating in GATT is that local agriculture will no longer have the government's full protection. This policy is generating a great deal of resistance from local farmers.

The government requested CPC's assistance to reduce this resistance by facilitating a policy of discounting the production and marketing costs of agricultural products. CPC's mission included introducing the local farmers to contemporary management techniques, developing a core of outreach administrative professionals, and disseminating information about the government's agricultural policies. Edward was assigned as Chief Manager for this project.

The way in which Edward implemented this project differed from the traditional ID process both in terms of content and approach. He provided additional on-site consultations and arranged supplementai

media promotion events to support the content of the activity. He chose a flexible, cyclical approach to the ID process. For example, when he grasped the essence of the problem(s), he would quickly reach a conclusion and then "map back" the whole process from the identified conclusion.

In the early stage of implementing the training activities, Edward focused his effort on the farmers. But, after closely observing the feedback and interactions, he decided to shift his focus to the government agricultural personnel because he realized that the latter was his real client. In other words, he wanted to channel his energy where it would have the most impact.

According to Edward, the instructors in this project were mostly CPC in-house professionals. This intensive involvement was motivated by several considerations: reducing potential resistance from the farmers to the follow-up consulting services, developing more CPC experts in this business line, and creating a market niche and repeat business for CPC.

Edward's wide business network enabled him to draw in a number of regional professionals to carry out this project. He and his team established several sites to disseminate the government's policies and to demonstrate their tangible accomplishments. The high visibility of the project results facilitated his client's buy-in.

Edward identified two major difficulties which he had to overcome during the project. The first was related to the unique nature of agriculture, e.g., farmers tend to have a conservative midset; their average level of formal education is low; they need to work during daylight hours. This influenced the timing of his team's activities and the way they communicated. The second was related to the mindset of some CPC staff who tended to think of agriculture as a low-end business. Edward now plans to capitalize on this experience to develop an Agricultural Enterprise Management Consultant program to foster outreach professionals--in anticipation of promising market.

Case Two (Mary)

Group A was formed at CPC in 1988 to promote Quality awareness. The group held annual Quality Month activities which usually included an opening convention, seminars on a topic chosen annually, various media promotions, as well as visits to exemplary companies. Because Quality month had been sponsored by the government, many CPC people believed that Group A was unable to support itself financially.

In mid 1993, Group A encountered a major challenge. The government decided that its Quality awareness policy had been successfully diffused throughout Taiwan's business community, and discontinued the group's annual supporting budget. Suddenly, the original mission of Group A was lost. Mary, the Group Manager, faced a tough choice: Whether or not to keep her group going.

Mary quickly held several meetings with her team members to announce this discouraging news, to exchange opinions and to consolidate the consensus. She simultaneously met with CPC top management to proclaim her team's intention and commitment, and to gain inter-organizational support.

After reaching a consensus and gaining team and management support, Mary did two things. First, she planned the next year's activities from their zero income base. Second, she took action to handle her team's transition both psychologically and behaviorally. To shift from its original "non-profit" identity to a "making-a-reasonable-profit" one, Mary led her team to identify what should be kept and what should be discarded. This shift involved a new mindset and subsequent behavior patterns.

During this tough time, Mary worked with her team members to experiment with the new approach. Experience was accumulated. New ideas and strategies bloomed and were carried out. As a result, the Quality Club and the Planning Professional seminar became two examples of the new ideas which bore fruit.

The Quality Club is an association of diverse corporations interested in quality issues. The strategy behind forming this Club was to ensure a basic business, to establish a communication channel

with clients, and to create an environment for enterprises to establish information networks and to form alliances.

The Planning Professional seminar, on the other hand, was a strategy to build the team members' professional competencies. Mary developed this education activity by mimicking what she usually does. Believing that the process for many things is similar, Mary stressed that the continuous experience of communication, negotiation, implementation, and revision is a necessity, because corporate situations are always in a state of flux.

To achieve successful project outcomes, Mary used three key strategies: (a) knowing the critical success factors for different kinds of activities, (b) distinguishing "our success" from "our client's success," and (c) using the client's standards as her criteria.

Mary encountered two particularly difficult problems. The first was the need of providing a clear vision for her team, because she could not guarantee the team members anything. People had to overcome the anxieties about survival before they could concentrate on the mission. Performance evaluation was Mary's second problem. Quality awareness activities were large in scale and abstract in content, which made their achievements difficult to measure quantitatively.

Case Three (Tony I)

Fleet is a major corporation in Taiwan's automobile industry. Bill, the President, wanted to globalize his business. One of his strategies was to enhance Fleet's human resources with CPC's assistance. Tony conducted a series of human resources development projects for Fleet, which became known as the Fleet Project.

The Fleet Project continued for three years under Tony's leadership. In the fourth year, following a major internal re-organization at CPC, it was transferred to another newly-formed group. Within a few months of this "organizational earthquake," the new group encountered serious turnover problems and the project was terminated.

Before Tony took on the Fleet project, he considered several issues from CPC's stand point: Was this project for "survival" or for "development"? Would it create a market niche? Was he mentally ready for this project? Was he professionally equipped to handle this project? Were the resources adequate? and, How tough was the client?

Although Tony stressed that the Fleet Project owed its success to the strong support from top management, it was his effective approach which formed the backbone of the accomplishment. Tony used his experience with Fleet to develop the DWACT corporate education model (Diagnosis, Workshop, Action, Consultation, and Training). DWACT is an in-house, tailor-made corporate education service model (see Table 1). Although the five steps in the DWACT model are presented in a procedural format, the practical operation of this model is an overlapping, concurrent approach (see Figure 1).

Clearly, what differentiates the DWACT model from the traditional ID approach is its emphasis on action, the use of non-educational interventions, the consultation activity, and the concurrent pattern of activities. According to Tony, the three primary functions of this model are: to amplify the value and effectiveness of educational activities; to highlight the market differentiation; and to bring an impact to the client organization.

In the diagnosis process, Tony used the standard business technique of SWOT (Strength, Weakness, Opportunities, and Threats) to identify the client's problems, and at the same time he passed on his diagnostic skills to the client. Before carrying out the workshop presentation, Tony discussed his agenda with the client representative. He found and then got rid of those issues which conflicted with the Fleet organizational culture. Tony then designed the workshop handouts in several modules which could be combined according to the different needs of the participants. The client then executed Tony's recommended action plan. Tony and his team provided consulting help when requested. The training activities were conducted concurrently with the action deployment.

Tony's lack of familiarity with his client's core technology [specific industry, issues and terminology] was the major problem in the Fleet project. But, Tony indicated that this was not difficult to solve because CPC has accumulated a wealth of consulting experience over time. Thus, the practitioner's ability to maximize CPC's resources becomes central to the problem.

Table 1: The DWACT Corporate ID Model (Source: Internal CPC document, Pang, 1992)

DWACT Corporate ID Model
Diagnosis • Collect, categorize, and analyze the client's needs and problems via interviews and/or questionnaires. • Design and structure the activity deployment by tracing the desired outputs back to inputs. • Present the findings to the client and revise them based on the client's feedback.
Workshop • Arrange the necessary contextual considerations into the workshop. • Stimulate the participants' discussion via instruction, information sharing, simulation, group exercise, or by changing "the rules of the game." • Consolidate the participants' consensus and commitment, as well as construct an action plan.
Action • Deploy the action plan in concert with a cognitive change. • Coordinate and evaluate the action deployed, then present the performance outcomes to the client.
Consultation • Assist in improving the action. • Facilitate performance by giving feedback and advice.
Training • Re-equip and upgrade techniques necessary for the ongoing actions. • Enhance the background knowledge and skills of participants for the follow-up activities.

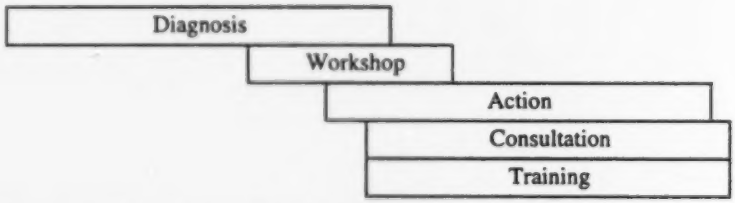

Figure 1: The Process Model of DWACT

Case Four (Tony II)

Informatics is a renowned government-sponsored research and development institute. Its main duty is to conduct R&D projects which promote the development of Taiwan's strategic industries. In addition, Informatics helps local hi-tech industries with their research activities. Because of its unique mission and characteristics, most of its operations must adhere strictly to government policies and regulations. Many professionals at Informatics had complained about the cumbersome purchasing process and the complexity of its project contracts. Informatics contracted with CPC to solve these problems. Tony was eager to take on this project because, if it succeeded, it would bring CPC great credibility. But, he also worried that Informatics' high expectations, its lack of experience working with ID practitioners and its internal politics would hinder his accomplishment.

After an in-house diagnosis, Tony concluded that Informatics' problems stemmed both from operational and policy-related causes. Although there was adequate room for improvement on the operational side, it would be difficult to get a radical improvement on the policy side due to the inflexibility

of the regulations. But, the client could not grasp the complexity which the project might involve. Because of the political considerations, instead of taking a holistic approach to these problems, Tony decided to follow the client's ill-defined intention, and focus only on improving the operational process.

In addition to the difficulties identified above, many other problems arose during this project. The client's problematic internal cross-functional communication and a lack of top management's support were two major roadblocks. The problems associated with the practitioner side were: (1) the hidden agenda (Tony originally planned to transfer the leadership of this project to Joe, another CPC professional); (2) unexpected organizational change (Joe was assigned to lead a newly-formed group); and (3) the lack of knowledge about the client's industry.

Tony re-designed both the purchasing and contracting processes and trained the institute staff involved in the new working procedures. As a result, the cycle time of the operational processes was reduced by 40%, but the policy-related procedures were not improved. By examining the "whole task," the impact was not so significant. The client criticized CPC team's performance. Tony felt powerless and frustrated.

Case Five (Emilie)

Knowseeds is a major corporation in Taiwan's telecommunications industry. It contracted with CPC to introduce the Kaizen business philosophy and techniques. Top management at Knowseeds was highly committed to this effort. But, this commitment resulted in extra pressure on the Knowseeds employees, a pressure which demanded visible results. Michael (Manager of Department C at Knowseeds and representative to CPC) felt the most stress. Not only did the pressure come from Knowseeds as a whole, but from his own division, because Department C had long enjoyed a reputation for high performance.

However, by its nature, Kaizen is not a business strategy which lends itself to fast success or quick fixes. And, Department C's consistent history of high performance left it little room for improvement. Thus, its opportunity for impressive results was much smaller than that of other departments with lower performance. Moreover, at the beginning of this project, Knowseeds incurred some inevitable start-up costs and the employees were required to institute economies in their customary operations. Subsequently, a variety of problems arose.

Dealing with the Knowseeds employees' reactions was the first problem. These workers had to change their operating procedures when quality techniques were introduced. But, the profits gained from this change were not credited to the efforts of these front-line "Kaizen-implementers." They felt exploited. The second problem was related to investment-return. Businessmen usually look for a fast return on their investment. This is reflected in their attitude when contracting for training or consulting services.

The third problem was the practitioner's unfamiliarity with the social dynamics of the client system, particularly the interpersonal networks, hidden agendas, readiness for change, resource allocation and response to evolving situations. Additionally, Emilie wrestled with the values and nature of her profession by asking: What is your professional aim? Who exactly do you want to help in your profession? What and how do you want to contribute to this society?"

A couple of months after initiating this project, Michael (the Knowseeds' manager) became impatient at the delay in outcomes. He did not want this project to hurt his reputation. He began to dispute certain issues with Emilie and her team members. Emilie found that Michael often chose approaches which would produce immediate and visible results, but which might not lead his department or Knowseeds to a better future. As the tension rose, Michael's management style changed, gradually shifting from a coach to a monitor of his subordinates.

In this project, Emilie decided to lead the client organization to reform its related policies and regulations, e.g. the incentive system. She wanted to ensure that productivity was rewarded and to prevent devious employees from taking advantage of the fluid situation.

Discussion of Findings

These five cases represent the initial effort to distill the raw data collected during the inquiries. The follow-up distillation of the data, which integrates the research questions and literature review, draws out the critical situational factors which were found to influence the practitioners' decision making. The findings are then formed the subsequent theoretical constructs. In this section, the findings of this inquiry are discussed under four themes: (a) situational factors, (b) interlacing network, (c) decision-making process, and (d) corporate ID practice.

Situational Factors

Five situational factors in the ID process were initially identified from the current literature. These were: (1) individual characteristics, (2) resource availability, (3) client needs, (4) organizational influences, and (5) market competition. Market competition was excluded because of the limited scope of the study. During the course of this inquiry, three additional situational factors emerged: (a) cultural context, (b) nature of the project, and (c) stakeholders. These three new factors were combined with the original four, forming a core of seven situational factors which are addressed below (see Table 2).

Table 2: Key Situational Factors in Corporate ID Practice (from research on "The impact of situational factors on the corporate instructional development practitioner's decision making," Liang, C., 1994)

Key Situational Factors in a Corporate ID Project

- **Client's Needs**
  The goals, expectations, intentions, standards, agendas, policies, and the specific demands of the industry of the client.

New • **Cultural Context**
  The specific environment in which the ID project is carried out under a set of shared cultural traditions, values, beliefs, and the influences of contemporary social issues and concerns.

- **Organizational Influences**
  The effects of the mission, values, culture, structure, and politics of the practitioners' system on the operations and outcomes of the project.

- **Individual Characteristics**
  The academic background, work experience, personal values, status in the organization, professional competencies, and interpersonal networks of the practitioner.

- **Resource Availability**
  The personnel, budget, time, materials, facilities, information and other resources necessary to implement the project.

New • **The Nature of the Project**
  The tasks, scope and priorities of the project handled by the practitioner.

New • **Stakeholders**
  The needs, concerns and benefits of those participants who have an interest in, or affected by, the activities and outcomes of the project.

The client's needs were found to be the *most critical* of the seven situational factors in the experienced practitioners' decision making. The factors of cultural context, organizational influences, individual characteristics, and resource availability were *critical in all five cases*. The nature of the project and stakeholders were less critical but still *significant*.

This study demonstrated the primary importance of the client's needs in the practitioner's decision making. Each of the four practitioners put their clients' needs as their first priority and took their clients' tangible requests or vague hints seriously in order to ensure the projects' success, stay in business, and make a profit.

The cultural context was the first of the three new situational factors found in this study. Localizing materials was an example. To localize means to get rid of or to modify some notions which conflict with local culture and to add regional examples in order to make sense to the local

audience. Many of CPC's educational materials are imported from Japan or the United States. The practitioners translated and then customized these materials to match their clients' needs.

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The cultural context was the first of the three new situational factors found in this study. Localizing materials was an example. To localize means to get rid of or to modify some notions which conflict with local culture and to add regional examples in order to make sense to the local audience. Many of CPC's educational materials are imported from Japan or the United States. The practitioners translated and then customized these materials to match their clients' needs.

Organizational influences repeatedly proved to be significant throughout all five cases and had a profound impact on each practitioner's daily operations. This factor was also a major source of the practitioners' professional ethics. Organizational influences flowed through to the client systems by way of CPC's triadic business strategy of kaizen, innovation and anticipation.

The factor of individual characteristics was also significant in all five cases. In addition to the practitioners' professional competencies, other aspects of individual characteristics were especially noticeable: in Edward's case it was his interpersonal relationships; in Mary's case it was her previous non-profit work experience; in Tony's cases it was his business capacities; and in Emilie's case it was her personal values.

Resource availability was a significant factor in Tony's Fleet project and in Mary's transition case, but for different reasons. While Tony was amply supported by his client, Mary had lost her major source of financial support. Resource availability was not usually a major concern to these four practitioners, because funding for many of their projects came either directly or indirectly from the government. In fact, these experienced practitioners had also worked hard to become "resource-smart" people. Thus, the novice practitioner who wishes to become "resource-rich" should become "resource-smart" by first becoming "resource-conscious".

The nature of the project emerged as the second new situational factor which has significant impact on the practitioner's decision making. For example, the complicated nature of the contracts in Tony's Informatics case and the long-range timeframe of the Kaizen strategy in Emilie's Knowseeds case were examples which demonstrated this influence.

Stakeholders emerged as the third new situational factor. For example, in Edward's case, it was the characteristics of the farmers (e.g., their education level) which influenced his decisions on the design of the training materials and the methods of delivering and communicating concepts. The opinions and concerns of the other stakeholders, the agricultural administrators and scholars, also had determining effects on his project decisions. Emilie's concerns about the reactions and welfare of the Knowseeds employees was another example of the emerging focus by practitioners on stakeholders' needs and benefits.

Interlacing Network

A pattern was evident in the dynamic interplay among the seven situational factors which emerged in all five cases. Throughout each project, these factors influenced each other and developed their own sophisticated, interlacing network. Each factor had its links to the others. Some of these links were solid, while others were subtle. It was the immediacy of the relationship that made the links solid. The subtle links became solid in a specific instance when a close relationship occurred. Figure 3 proposes a construction of this interlacing network of situational factors.

The factor of individual characteristics is used here as an example to explain the nature of the linkages among the situational factors. The link between individual characteristics and cultural context is solid because Taiwan society is where these practitioners grew up, live and work. Resource availability is directly influenced by the quality of the practitioners' interpersonal relationships. Organizational influences (CPC's unique mission, values, culture and leadership) stimulate their thoughts and guide their professional conduct. Their personal traits and professional competencies determine if these practitioners' capacities match their clients' needs and whether or not they are likely to fulfill their clients' goals.

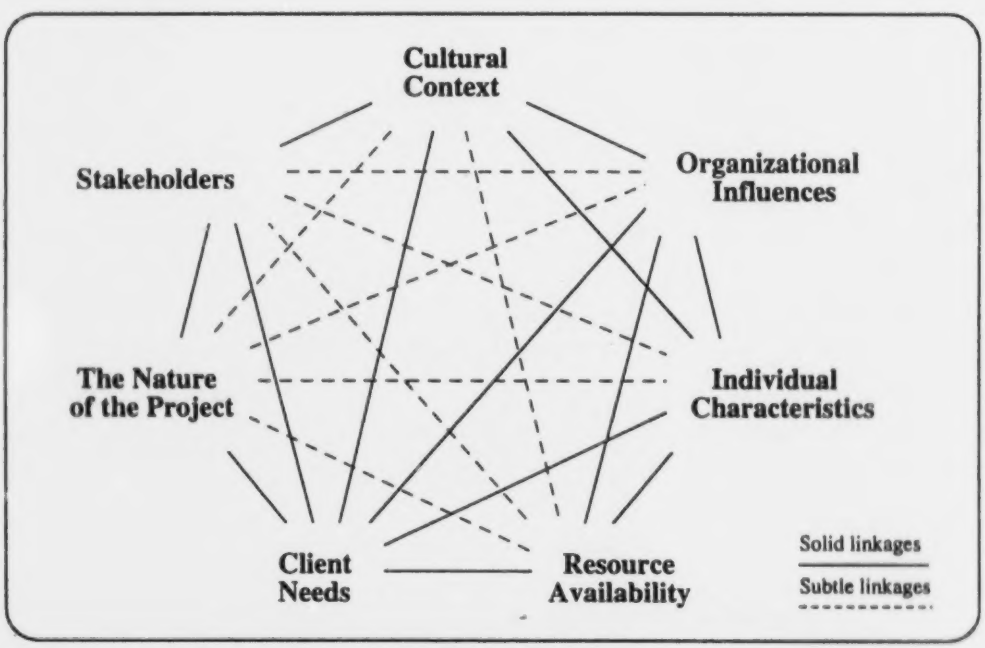

Figure 3: Interlacing Network of Situational Factors (from research on "The impact of situational factors on the corporate instructional development practitioner's decision making," Liang, C., 1994)

Usually, the factor of individual characteristics does not have a close association with the nature of the project or the stakeholders' benefits. But, in Mary's team transition case, individual characteristics and the nature of the project did become closely related. Because Mary's job had been non-profit in nature, this "habitual domain" psychologically hindered her professional practice during her team's transition to self-

supporting status. In Emilie's Knowseeds case, the link between individual characteristics and stakeholders became solid because of her personal values. In asking who exactly a corporate ID practitioner wants to help, she was expressing concern about the Knowseeds employees' reactions and benefits.

As the data emerged, the interlacing network of situational factors proved to be an important construction which could track the practitioners' decision-making processes. This network showed how they analyzed the causes, current status and developmental directions of the problems they encountered. It provided a mental framework which could be used to visualize possible actions and the resulting consequences, and to create a prioritized list of the action events.

Decision-Making Process

Each of these experienced practitioner's decision-making processes were greatly influenced by a variety of external physical, intellectual and social forces existing in the surrounding context. It was the interplay of these forces which formed each specific project situation. The practitioners then made their decisions based on their interpretation of each situation and its context.

When the practitioners encountered a decision point, they explored the problem which had brought them to this decision point and delineated the readily identifiable situational factor(s) relevant to the problem at that time. They then mentally analyzed the sophisticated relationships among the specified factor(s) and the other situational factors.

The practitioners constantly updated their knowledge about the problem by seeking out new information from the context and/or searching for patterns which matched their previous experiences. They took account of the subsequent change in the relationships among the situational factors.

This continuous interaction with the situation enabled the practitioners to move gradually from involvement in each single situational factor to a consideration of the entire relationship; from an exploration of the problem to a commitment to the situation (refer to Figure 3). In short, they held a reflexive conversation with the situation.

Bearing the project's goal in mind, the practitioners then used their renewed knowledge to construct possible courses of action and to reason out possible consequences for each of these actions. Subsequently, the practitioners mentally developed a prioritized list of action events based on their intuition and/or judgment by visually rehearsing and comparing possible combinations of actions and outcomes. They then implemented the action(s) they had selected by following that priority.

Throughout their projects, the practitioners continued the processes of seeking out new information and searching for patterns in prior experiences to assess the emerging situations. Or, they moved in a similar way to address the new decisions which resulted from the actions they had undertaken.

Figure 4 proposes a construction of the practitioner's decision-making process. As the figure shows, decision making is a dynamic process in which continual exploring, searching, analyzing, constructing, prioritizing and visualizing activities may be carried out simultaneously or sequentially. It is further proposed that these activities take place within the architectural structure of the interlacing network of situational factors.

Edward decided to shift his focus from the farmers in his workshop to the government personnel because he was concerned about the project's eventual effectiveness and his client's satisfaction. At this decision point, client's needs and the nature of the project were the key situational factors which were immediately related (solidly-linked), while the stakeholders and resource availability were the more distantly related ones (subtly-linked). Edward decided to put the client's needs as his first priority because he had grasped the essential relationship among these situational factors.

He had perceived that it was the client, and not CPC, who would provide most of the ongoing support and resources (experts, capital, facilities and information) which would facilitate the project's success. It was also the client who had a closer relationship with the farmers and could diffuse what had

been taught. This already solidly established relationship, combined with an effective diffusion system, would benefit the farmers and fulfill the government's policies, as well as stimulate repeat business for CPC.

In Edward's decision-making process, he continually sought out new information (e.g., through meetings with the client and reading suggestions from the post-training evaluation questionnaires). He also searched for pattern matches by reviewing his previous experiences, and he asked himself who his real client was. The updated knowledge not only helped him clarify the nature of the problem, it also deepened his understanding of the interrelationships of the situational factors involved.

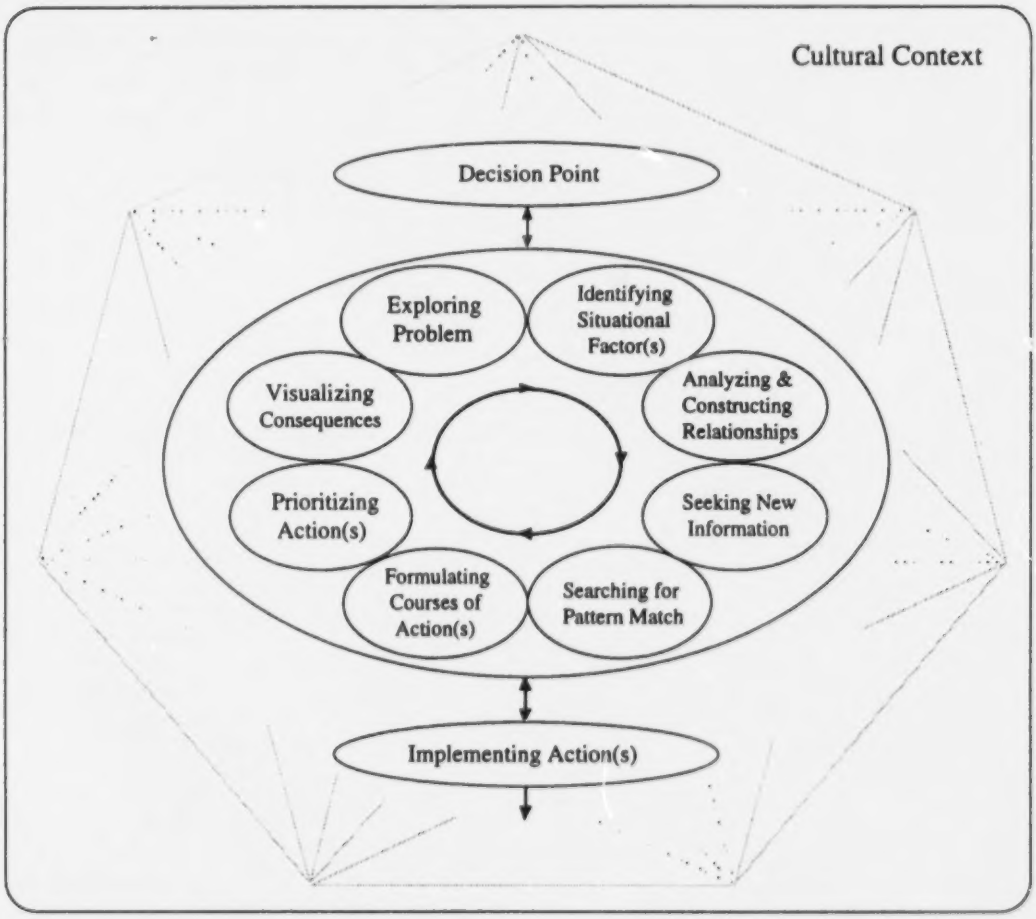

Figure 4: Model of the Corporate ID Practitioner's Decision-Making Process
(from research on "The impact of situational factors on the corporate instructional development practitioner's decision making," Liang, C., 1994)

In Mary's case, her team encountered a crisis because of its loss of financial support. Its survival depended on whether it could successfully generate support from both its organization (CPC) and its clients (Taiwan businesses). At this decision point, organizational influences and client's needs became the critical situational factors. After mentally analyzing the problem, Mary began to gather more information and build support by discussing the situation and possible actions with her team members and top management.

These discussions brought out numerous innovative ideas for creating market niches. The consequences of each idea were then examined against the criteria of profitability. Mary then gradually

moved from exploration of the problem to a commitment to the situation. Subsequently, the Quality Club was formed both to secure a basic source of revenue and to create an information network to the business community. The Planning Professional seminar was carried out to enhance her team members' professional capabilities, and to equip them for the long run.

In taking on the Informatics project, Tony followed his client's intention of improving the contracts process only. He mentally and operationally went through the same reflexive decision-making process as Mary. Likewise, Emilie's decisions on reforming the Knowseed's incentive system and her strategies for moving beyond the role of an ID practitioner shared the same characteristics.

The findings of this inquiry answer the original research questions. They also suggest answers to the following additional questions:

- How does the experienced ID practitioner arrive at decisions that a choice or action is feasible in an identified situation?
- What strategies do the experienced practitioner use in diagnosing a situation? and
- How does the experienced practitioner's choice of action fit within the broader framework of his/her reasoning about the situation?

Corporate ID Practice

Throughout this inquiry, the findings have consistently shown support for the perspective of ID as an eclectic discipline. Whether or not ID activities refer to a specific process, to a set of criteria, or to a social intervention, appropriateness emerges as the key. Effective ID involves a subtle and sensitive blend of all the above perspectives, which varies according to the needs of the project, the context in which the project takes place, and the people involved in that project, especially the client. Experienced practitioners are flexible enough to adjust their mindsets and approaches according to the different needs and situations which evolve.

This inquiry also supports the contention that ID is an interdisciplinary profession. In order to perform effectively, experienced ID practitioners transcend the boundaries of their professional discipline. This transcendence enables them to make significant contributions to the clients they serve, and to the society in which they reside. ID as an interdisciplinary profession becomes even more appropriate in the emerging "boundaryless" corporate environment.

This inquiry shows its concurrence with and bias toward recent developments in ID which acknowledge diverse social, political and cultural influences on professional ID practice. Experienced practitioners are sensitive to any newly emerging situations and willingly adopt a more flexible approach to their projects. They emphasize action-taking and action-learning, and offer both educational and non-educational interventions. These practitioners lead high-performance teams competently and demonstrate the ability to execute many assignments concurrently. They satisfy their clients, accommodate the stakeholders, and they promote their organization's interests and their own professional growth at the same time.

Based on the findings of this inquiry, a conceptual framework for corporate ID practice was created. This framework is descriptive in nature and refers to no specific technical procedure. It operates within the architectural structure of the interlacing network of situational factors. As the conceptual framework illustrates in Figure 5, in a particular cultural context, the process of a corporate ID project brings the practitioner and client systems together.

Three major activities take place: diagnosis, action and evaluation. These are carried out either sequentially or concurrently, as diverse situations continually evolve. The diagnosis activity includes needs and performance capacities analyses. Action represents the implementation of resolutions. Evaluation consists of performance evaluation and revision. The client, practitioner, and relevant stakeholders are at the confluence of the three activities. Endeavors devoted to creating values for these participants are situated in this central realm. The interface between activities and participants, the three overlapping segments of any two activities, are areas full of continual communication, negotiation and interaction.

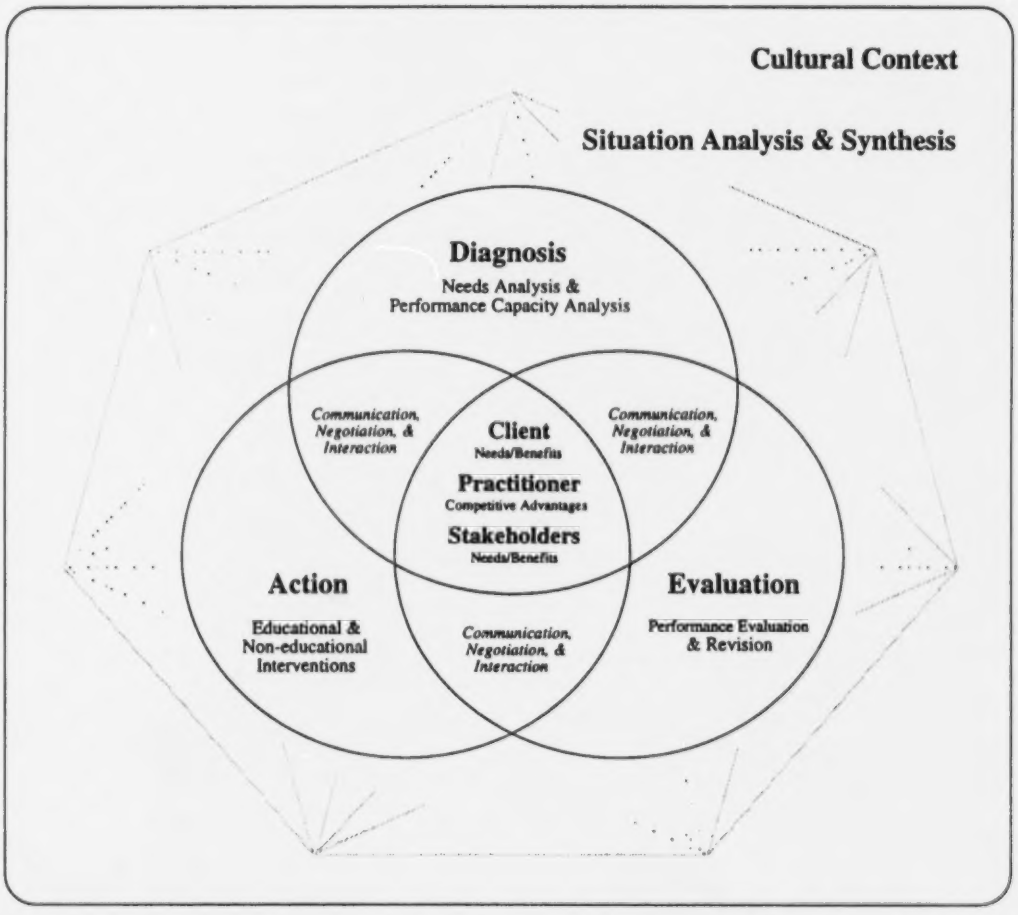

Figure 5: Conceptual Framework of Corporate Instructional Development
(from research on "The impact of situational factors on the corporate instructional development practitioner's decision making," Liang, C., 1994)

Cultural context in the conceptual framework represents a complex network in which traditional values are interwoven with contemporary values and issues. Cultural context acts as a filter to help the project participants preserve things that fit, but screen out those that do not. It directs the participants' behaviors based on their belief systems.

An ongoing situation analysis and synthesis is carried out throughout the project to help the practitioner make decisions and to guarantee performance quality. The practitioner grasps the critical situational factors and their interrelationships, and then takes strategic action(s) to optimize the situation and to achieve full utility of the resources available to him/her.

The diagnosis activity is aimed at exploring both the client's business needs and the practitioner's performance capacities. Negotiation permeates this activity. The continual dialectic between the practitioner and the other project participants clarifies ill-defined project goals, or restructures or reinforces the established ones. The core agenda is to reach a jointly satisfactory match of needs and capacities.

While on the client side, needs analysis has been explored thoroughly in the ID literature, on the practitioner side, performance capacity analysis has received little attention and has seldom been addressed. An analysis of performance capacities should include a precise scrutiny of the available means (e.g., professional competencies and resources) necessary to implement the project. And, it should be done from the practitioner's, the client's and the stakeholders' perspectives. It should encompass an examination of the practitioner's values, mindset, and professional ethics.

The action activity implements the mutually agreed on resolutions developed from the diagnosis activity. If the problems identified are knowledge and/or skill deficiencies, then educational interventions such as training or job aids are proposed and carried out. Relevant techniques are taken into account, e.g., task analysis, instructional strategies, media selection, design and production of materials. But, if the problems are related to performance discrepancies, then non-educational interventions are suggested and implemented, e.g., motivating, promoting communication, supplying timely feedback, redesigning jobs, or reforming the organizational structure.

All the interventions employed to resolve these problems are situation-specific, and are directed toward purposeful action. In order to optimize the effect of the solutions, the interventions must be linked to the client's system and become an organic part of their daily operations.

The evaluation activity encompasses both ongoing performance evaluation and revision. This activity is an effort to create a joint agreement about the project's worth, similarly proposed by Coleman, et al., (in press). The critical concerns of evaluation are: the practitioner's ethical reflections, the resolutions of the consulting subject, allocation of project resources, the client's agenda, the social dynamics of the client system, the impact on both the practitioner's and client system, and potential for the repeat business.

A corporate ID project may include all of the above three activities (diagnosis, action and evaluation) or any combinations of these. The project may start from, or end at, any activity. Either starting or ending a project is enacted at the overlapping areas of any two of these three activities.

These three overlapping areas, the interface between the participants and the activities, are filled with constant interactions among the project participants. These are the areas rich with different perceptions, experiences, values, and cultures, i.e., areas crowded with "human obstacles" as termed by Arnn & Strickland (1975). It is in these interfacing areas that the project participants identify and overcome various human obstacles. Tasks conducted in these areas may include communicating, negotiating, compromising, reviewing, contracting, and managing or terminating the project.

All efforts engaged in the project are aimed at creating values to the client, to the relevant stakeholders, and to the practitioner. The practitioner, while maintaining standards of professional ethics, exercises his/her competitive advantages and strives for the project's success. Success emphasizes win-win outcomes--not only economic objectives, but the achievement of "social satisfaction"--delighted clients, satisfied stakeholders, and professionally evolving practitioners.

Future Directions

This study has opened many areas worthy of further exploration. These areas are synthesized under two major themes: (1) corporate ID practice in general, and (2) the experienced practitioner's decision-making process in more specific detail.

Corporate ID Practice

Future research on corporate ID practice might focus on this topic in different contexts (e.g., private corporations, academic environments or other cultural contexts) and/or with different methodologies (either under a naturalistic or positivist paradigm). Far more study is needed on the concepts identified in this inquiry such as the situational factors and conceptual frameworks. Following is a partial list of suggestions which promise to provide fruitful results.

Situational Factors

- the critical elements in each situational factor, and
- the effects of these critical elements on the practitioner's decision making.

Conceptual ID Frameworks

- the process models generated from the emerging frameworks,
- the prescriptive or descriptive guidelines developed from these emerging frameworks or process models,
- the process of situation analysis and synthesis,
- the criteria for, and process of, performance capacity analysis,
- the effect of relationships among different types of clients and stakeholders on the practitioner's decision making, and
- the effects of different business strategies on the practitioner's decision making.

Decision-Making Process

Given the results of the present study, several questions regarding the practitioner's decision-making process remain unanswered. Themes recommended for further study to extend the research begun here are: (a) the individual practitioner and project team, and (b) corporate ID training.

Individual Practitioner and Team Issues

- the types of decision-making errors made in ID project,
- the strategies for handling these decision-making errors,
- the effects of various stressors (e.g., time pressure) on decision making,
- the strategies for overcoming project problems with incomplete and/or inaccurate information,
- the effects of increased hands-on experience on decision making,
- the effects of increasing knowledge of the subject matter on decision making,
- the major issues in corporate ID *team* decision making, and
- the process and strategies of *team* decision making.

Corporate ID Training Issues

- the curriculum for training ID practitioners in situational assessment and decision making skills, and
- the instructional methods or strategies for training ID practitioners in situational assessment and decision making skills.

The answers to these questions promise to significantly improve our understanding of corporate ID decision making, as well as provide an intellectual foundation for advanced studies of professional ID practice in the corporate setting.

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